

Anchor Handling Tug Supply (AHTS) Vessel

KPV Kapas



Classification

Delivery Date : 29th January 2010
 Class : American Bureau of Shipping(ABS) Maltese Cross + A + Fifi Class 1, + AMS, Circle E, for restricted services. DPS- 1 Enable

Name/Registry/Flag

KPV Kapas/ Port Klang / Malaysia
 Call-sign : 9MLD2
 IMO NUM : 9537824
 Official Number: 334135

Principle Dimensions

Length O.A :	60.00 m	Deadweight :	1798.60 T
Breadth Moulded :	16.00 m	Depth Moulded :	6.00 m
Displacement :	2845.87 T	Max. Draft :	5.10 m
GRT/ NRT :	1704 / 511	Endurance :	25 days
Deck Carrying Capacity :	1, 950 MT	Deck Strength :	5 MT/ m ²
Speed :	10 knots @ 85% MCR / 13 knots @ 100% MCR		

Clear Deck Space:

Deck area :	390 m ²
Total deck area inclusive steel deck :	390 m ²
Total deck area without steel deck :	334.72 m ²
Steel deck area :	55.28 m ²

Tank Capacity

Potable water/ Fresh Water :	460 m ³	Fuel Oil :	530 m ³
Sludge :	2.1 m ³	Drill Water (DW) :	478 m ³
Foam Tank :	10 m ³	Dispersant Tank :	10 m ³
Sewage Holding Tank :	12 m ³	Bilge Holding Tank :	10 m ³
Liquid Bulk Capacity :			
Base oil :	1164 m ³ (bbbls)	Mud :	1258 m ³ (bbbls)
Brine :	1164 m ³ (bbbls)		

Bulk Handling System

Suitable for carriage of Cement, Barite and Bentonite with max. density of 2.5
 • Total Capacity: 4 x 1375 ft² (156 m³) approx.
 • Working Pressure: 80 psi (5.6 bar)

Pumps

Fuel :	1 x 100 m ³ /hr at 75 m head
Potable Water :	1 x 100 m ³ /hr at 75 m head
Fresh Water :	1 x 100 m ³ /hr at 75 m head
Drill Water :	1 x 100 m ³ /hr at 75 m head
Dry Bulk Delivery :	2 x 14 m ³ /hr at 5.67 bar
Liquid mud/Brine :	2 x 80 m ³ /hr at 75 m head
GS & Fire/Detergent :	50 m ³ /hr at 57 m head
Brine :	2 x 100 m ³ / hr at 80 m head

Main Machineries

Main Engine

- 2 x YANMAR (FHH0360 & FHH0359)
- 2 x 1920 kW @ 2610 HP (440/60/3)

Thrusters

Bow Thruster (Electric Motor Driven by Shaft Generator) :
 • SCHORCH (50103702/1)
 • 600 kW / 805 HP delivering 8 MT lateral thrust (electric motor driven).

Stern Thruster (Electric Motor Driven by Shaft Generator) :
 • SCHORCH (50103702/1)
 • 450 kW / 604 HP delivering 6 MT lateral thrust (electric motor driven).

Steering Gear & Rudder :
 • 2 x High Lift 45° Rudder c/w Flap
 • 2 x Independent Electro- hydraulic steering gear for each rudder

Propeller:
 • Control pitch propeller (CPP)

Power Plant

Main DG:

- 2 x Caterpillar
- 2 x 280 kW @ 375 HP (440 3/60)

Shaft Generator:

- 2 x REINTJES
- 2 x 1920 kW @ 2610 HP (440 3/60)

Emergency DG/ Harbour Genset:

- 1 x Caterpillar
- 90 kW @ 121HP (440/3/60)

Deck Machinery

Anchor Handling Cum Towing Winch

- Electro- hydraulic Driven Twin Drums in Waterfall Configuration, 1000m x 58mm dia. wire
- Brake holdings – 250 MT (1st layer)/ spring loaded hyd. Release Dynamic lowering @ 25 MT @ 0 to 36 m/ min (1st layer) Remote control in Wheelhouse and local control at site.
- Work wire complete with GOLD NOSE socket terminations.

Anchor Handling Gear

- 1 x 500 m x 58 mm diameter work wire complete with GOLD NOSE socket terminations.
- 4 x buoy catcher slings.
- 1 x heavy duty J hook.
- 1 x grapnel.

Anchor Handling Securing Device

- 1 set of Anchor Handling Securing Device: Ulstein Shark jaw SWL 300MT
- Hydraulic stopper: SWL 290MT

Towing Gear

- 1 set of 1.6m x 38 diameter gob lines or as per class requirements
- 58 mm X 1000 (m) x 2.7 (") diameters towing wire plus one spare brand-new tow wire completes with GOLD NOSE socket terminations.

Towing Pins

2 x 200 MT SWL, equipped with rotating liners c/w turntable flaps & hydraulic cylinders for lifting & lowering.

Stern Roller

1.8 m dia. X 4.2 m length with SWL of 375 MT

Towing and Anchor Handling Winch

Winch (Pull Capacity)
 • Towing Winch: 150 MT
 • Anchor Handling Winch: 150 MT

Winch (Brake Capacity)

- Towing Winch: 250 MT
- Anchor Handling Winch: 250 MT

Drum Capacity

Electro-Hydraulic Driven Twin Drums in Waterfall. Configuration: 1500m X 2.5mm diameter.

Deck Crane

2.5 MT SWL

Capstan

2 x 5 MT @ 15 m/ min

Tugger Winch

2 x 10 MT @ 15 m/ min.

Storage Rope Reel

1 x 10MT @ 0 to 15 m/ min @ capacity : 1000 ml x 58 mm dia. steel wire rope, 2 x 45 kW hydraulic operated with local controls

Bollard Pull

63.8 MT (Continuous Bollard Pull).

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Deck Space Utilization Markings

- Fully utilised. Clear and suitable size of main deck space marking (with numbering).
- Deck space painted with yellow lines denoting square of (10 ft x 20 ft).

Deck Timber Sheathing

- The aft cargo deck is sheathed with 51 mm thick hardwood properly secured to the main deck excluding the anchor handling area in the stern.
- The total area meets Clear Deck Space criteria.

Stern Barrier

Gate type

Crash Rails

Available on both sides of vessel main deck. 2.5-meter height.

Fenders

Aircraft type tyre fenders in place as per GA Plan.

Medical Equipment

Minimum specifications as follows but not limited to (comply to IMO Standards):

- 2 x Oxygen resuscitator plus one spare Oxygen cylinder (where applicable)
- 1 x Paraguard stretcher Mk. 3 c/w 4 pts lifting sling.
- 4 x sets Airsplints
- 4 x 25 persons First Aid Kit
- 1 x 100-liter antiseptic lotion in sealed locker
- 1 x Automated External Defibrillator (AED)
- 1 x unit Portable Blood Pressure Monitor

Oil Pollution Equipment

Available complete dispersant spraying system and agitators.

- 10 m³ of dispersant storage tank at 100%
- 50 m³/hr dispersant pump capacity at 1 bar pressure.
- Nozzles generate droplets size in range of 500 to 1200 microns, able to spray dispersant neat in the ratio of 1:10 (dispersant water).

Fire Fighting Equipment

External Fire Pump

1 x 60 m³/hr @ 6 bar

Fire monitor

1 x 1200 m³/hr @ 12 bar

Fire Extinguish system

- Fixed CO₂ system for Engine Room and Bow Thruster Room.
- Sprinkler system: As per ABS rules and SOLAS requirement.
- Fire Hydrants & Extinguishers: As per ABS rules and SOLAS requirement.

Life Saving Appliances

As per ABS rules and SOLAS requirement

Accommodation

All accommodation spaces & engine control room are fully air-conditioned.

Accommodation Layout:

Marine crew: 17 pax

Passenger: 23 pax

- 1 berth cabin x 4 = 4 men
 - 2 berth cabin x 2 = 4 men
 - 4 berth cabin x 8 = 32 men
- Total = 40 men

- 1 x 1 berth (sickbay) = 1 men
- 1 x recreation room

Recreational Facilities

- TV minimum 42 inch with Astro
- Gymnasium with suitable equipment
- DVD/CD player

Working Areas

Designated Working Areas as follows comply:

- Room
- Paint store
- Instrument Workshop
- Welding Workshop
- Mechanical Workshop

Communication/ Navigational Equipment

Navigational and communication equipment per SOLAS / IMO (GMDSS) including International Maritime Satellite System

- GMDSS: Inmarsat C (Furuno Felcom 15) x1; SSB radio MF/HF ctrl unit (Sailor CU 5100)
- Radar: Raytheon Anschutz (with ARPA)
- Gyro Compass: Digital Gyro Std 22 (Anschutz)
- Auto Pilot: Anschutz Pilot star D
- GPS Navigation: Furuno GPS RD 30
- Echo Sounder: Furuno FE 700
- Walkie Talkie: Motorola GP 328
- AIS/SSAS: Furuno IC-307
- VHF Transceiver: NSR NVR-1000; Vertex 1000S

Searchlights

2 x 2000watt, revolving searchlights capable of 360° rotations. searchlights c/w remote controls (1 fwd & 2 aft). Sufficient illumination on the fore and aft deck to enable night operations to be carried out safely.

CCTV

7 sets of CCTVs to cover 360-degree field of view camera with infra-red /night vision capability. CCTV system with computer, UPS & storage which able to retain the video for 10 weeks.

Reefer Points

- 4 no. x 16 Amp, 415/3/60 and 4 no. x 32 Amp, 220/1/60
- IP68 waterproof

Flexible Hoses

Fuel Oil

- 1pc 3inchx30meter both end Male Female TODO
- 1pc 3inchx25meter Camlock

Fresh Water

- 1pc 3inchx25meters Camlock

Portable Water/Drill Water

- 1pc 3inchx25meters Camlock
- Floataction collars available

Cargo connections

Fuel Oil: 4" hose with TODO coupling
Fresh Water: 4" hose with TODO coupling
Drill Water: 4" hose with CAMLOCK coupling.
Dry Bulk: 5" hose with CAMLOCK coupling.
Liquid Bulk: 4" hose with CAMLOCK coupling.

Drip Sampler

Equipped with certified MARPOL drip sampler.

Rescue Craft

Semi rigid type

- Size: 4.50 (m) x 1.85 (m) x 0.85 (m)
- 40 (HP) outboard engines
- Fitted with proper quick launching and recovery facilities onboard.
- Davit crane as per SOLAS requirement

Rescue Zone

2 sets on each side of the vessel at main deck. Marked RESCUE ZONE painted in bright yellow with diagonal black stripes.

Weighted Scrambling Nets

Available one on each side of the RESCUE ZONE. 2 m wide, made of 12 mm diameter nylon with 200 mm X 200 mm hole.

Gangway

1 set of portable gangways complete with handrails and safety net.

- Length: 6.0 meter
- Width: 0.6 meter

Pilot Boarding Platform

Via RESCUE ZONE.

Personnel Boarding Platform

Via RESCUE ZONE.

Boat Landing Platform

Aft Port & Stbd

Work Vest

Self-up righting capability.

- Comply with USCG/North Sea Standards.
- 8 units

M.O.B. Dummy

1 set of 40 (kg) Ruth Lee M.O.B dummy

Manning

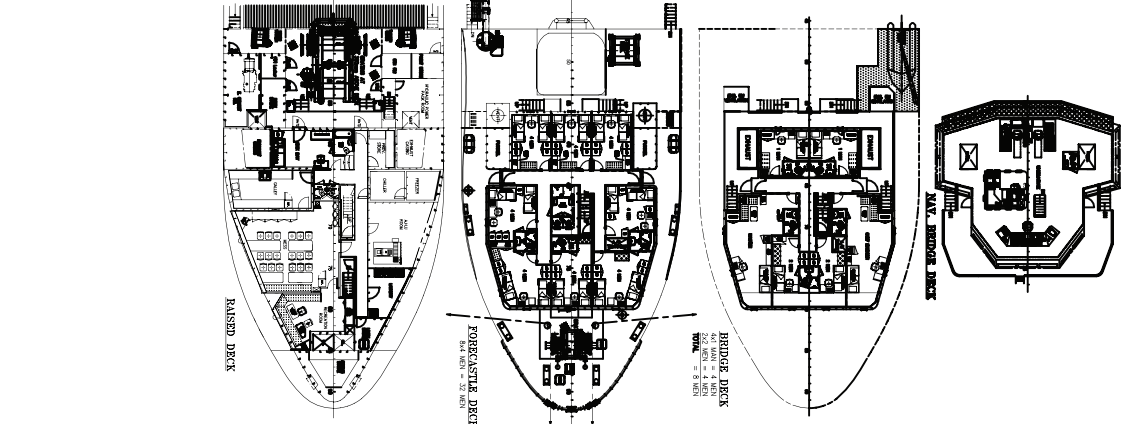
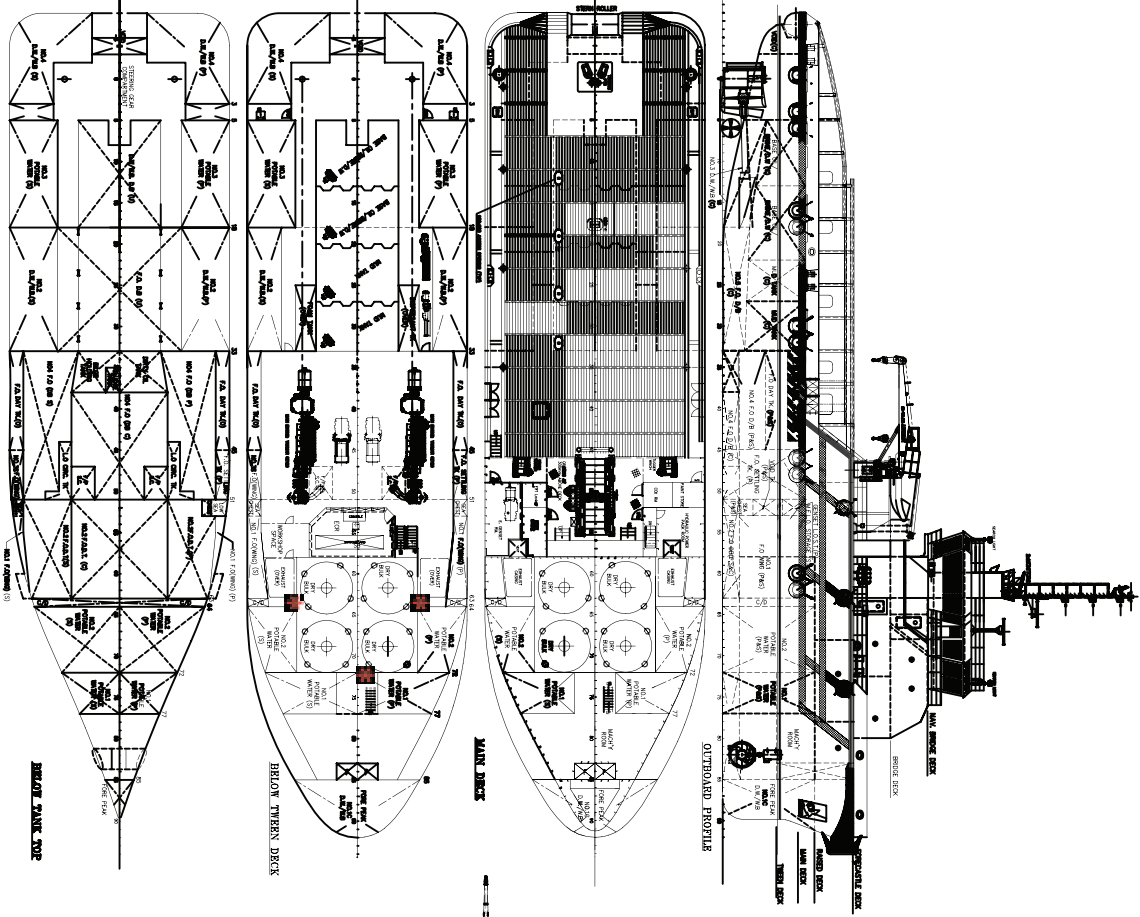
Comply as per STCW and carrying below Minimum Safe Manning Certificates- Minimum Safe Manning Unlimited

- Minimum Safe Manning Near Coastal
- Minimum Safe Manning Domestic

Fully complied with the STCW '95 Convention including 2010 Manila amendment and in particular respect to Chapter VIII, Section A-VIII/1 "Fitness for duty"

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GENERAL PARTICULARS	VALUES
LENGTH O.A.	60.00m
LENGTH M.L.	58.74m
BEAM M.L.	6.00m
BEAM M.O.	6.00m
DEPT M.L.	5.10m
DISPL. MAX	40 MDS
DISPERSANT	450m ³ (Approx.)
FOAM	450m ³ (Approx.)
LIQUID MLD	450m ³ (Approx.)
BASE OIL/BRINE/D/W	180m ³ (Approx.)
DISPERSANT	10m ³
DRY BULK	150m ³
DIRTY OIL DING	10m ³
DECK SPACE	300m ² (Approx.)
DECK LOADING	5 Tonnage/m ²
POURABLE WATER	150m ³